

It is believed that no new matter is presented in the amended claims.

RESPONSE

5 Information Disclosure Statement, Paragraph 1 of the First Office Action

The applicant thanks the Examiner for consideration of the IDS.

Claim Objections, Paragraph 2 of the First Office Action

10 The Examiner objects to claim 14 and requires correction of “a” to “an”. The correction
is hereby made.

Claims Rejection Under 35 USC Section 103, Paragraphs 3, 4 and 5 of the First Office Action

15 The Examiner presently rejects claims 1 and 7 through 15 under 35 USC Section 103(a)
 (“non-obviousness”) over a combination of US Patent No. 6065939 (hereinafter “the ‘939
reference”) and US Patent No. 5497918 (hereinafter “the ‘918 reference”). The Examiner
further rejects claims 2 through 6 under 35 USC Section 103(a) over a triple combination of the
‘939 reference, the ‘918 reference, and US Patent No. 6070927 (hereinafter “the 927 reference”).

20 It would be useful to first consider the actual structures and teaching of the invention and
the three references.

The Present Invention

A number of exemplary structures may be considered. The present invention teaches the use of a thermoelectric heater/cooler having "components disposed within the structure of the vehicle . . . do not take up passenger compartment space." It also teaches a liquid dispenser (a spigot, a faucet or the like) about which it is stated that the "liquid dispenser has a second position concealing the liquid dispenser within such vehicle dashboard". In other words, the liquid dispenser may be brought out onto the dashboard for use or concealed within the dashboard to improve the appearance of the dashboard. The spigot / faucet / liquid dispenser may have a door attached to the faucet as part of the structure to conceal it within the dashboard and a control switch may be mounted on the driver's side door to permit driver control over the device.

It is important to note that a thermoelectric heater relies upon the direct conversion of electricity into a heat differential by means of the Peltier-Seeback effect, better known as the thermoelectric effect, from which the terms thermoelectric heater / thermoelectric cooler come. This effect is reversible and thus can be used to create cooling and heating from a single element, or even to create electricity from a heat differential.

Other structures may be discussed by the applicant at a later date, but in the interests of speeding prosecution, this list should be sufficient.

The '939 Reference

The '939 reference to inventor Lin for DRINKING WATER SUPPLY FOR AUTOMOBILE PURPOSE teaches a box-like electric heating device on a vehicle dashboard, a water bottle mounted in the passenger compartment of the car, and a small nozzle for delivery of

the water.

However, the '939 reference does not teach a thermoelectric heater. The '939 reference clearly teaches away from thermoelectrics and towards an ordinary resistance heater in which electricity passing through a material encounters resistance and heats the material. An electric coffee-pot and an ordinary (non-fluorescent) light bulb, would be examples of resistance heating. (Also known as "the Joule Effect", after "Joule's Law" of electronics, named after James Prescott Joule.)

A discussion of this difference may be found in the present patent application as originally filed, at lines 2 through 9 of page 4, discussing the fact that the '939 reference is not clear on the nature of the electric heater, and that structurally separate coolers are normally unnecessary for thermoelectric heaters.

The Examiner will of course carefully examine the '939 reference to verify that it does not claim a thermoelectric heater. According to a computer search of the text of the '939 reference, not once do the terms "therm" or "thermo" appear in the '939 reference. The heater 11a of the '939 reference is referred to as "an electric heater" (which normally means a resistance heater). Thus the terminology of the '939 reference teaches towards a resistance heater and never once mentions thermoelectric heating.

More importantly, the '939 patent specifically teaches use of separate heating and cooling elements. Heating element 11a and cooling element 11b of Fig. 2 are separate. While the text of the '939 patent states that the heater is "an electric heater", it is absolutely silent as to the nature of the cooler, just calling it "a cooler". (See '939, col. 2 lines 40, 41). The text states that they are activated separately, depending on whether hot or cold water is desired ('939, col. 3, line 41

thru col. 4 line 6). This would be a normal procedure for a Joule heater and some sort of auxiliary circulation cooler having a coolant (FREON or the like) inside of the cooler's pipes. All of this un-necessary complexity strongly teaches away from use of a thermoelectric cooler, because in a thermoelectric heater the heating and cooling element is/are one and the same unit:
5 the different heat exchange is achieved by reversing the direction of current flow.

The '939 reference lacks at least the following structures of claim 1 and claims dependent upon claim 1 of the present application:

- “a thermoelectric liquid heat exchanger disposed in such structure of such vehicle.“

10 The resistance heat exchanger of the '939 reference is disposed in a box on the dashboard of the vehicle, not in the structure of the vehicle.

- “liquid dispenser has a second position concealing the liquid dispenser within such vehicle dashboard.” The spigot of the '939 reference has no provision for any second position, and thus lacks one position on the dashboard and a second
15 position inside the dashboard.

- “the liquid dispenser further comprises a door.” The '939 reference lacks a door on the liquid dispenser.

- “the first switch is mounted on the driver's side door.” The '939 reference lacks a
20 switch on the driver's side door.

The '918 Reference

The '918 reference to inventor Brilanchik for SYSTEM FOR DISPENSING A

THERMALLY MANIPULATED DRINK IN A LAND VEHICLE teaches an audacious system in which the *actual heating and cooling fluids of the vehicle's internal combustion engine* itself are used to heat and cool beverages for human consumption. That is, such substances as ethylene-glycol (which is poisonous), FREON (another poison) and R-134 (not suitable for human consumption) are to be passed close to the tubes, pipes or hoses carrying beverages for a human being to drink.

Thus, this device lacks any thermoelectric heater, and teaches away from use of a thermoelectric heater by teaching use of the vehicle engine fluids to heat/cool beverages.

Firstly, since the '918 reference teaches away from thermoelectric heaters, it may not properly be combined with any references which do teach such heaters. "A reference may be said to teach away when a person of ordinary skill, upon reading the reference . . . would be led in a direction divergent from the path that the applicant took." *In re Gurley*, 27 F.3d 551, 31 USPQ 2d 1130, 1131 (Fed. Cir. 1994). Above and the beyond the fact that the '918 reference cannot teach away from thermoelectric heaters, there must be some suggestion in the art to make the combination. There is no suggestion in the '918 reference that it be combined with the '939 reference resistance heater or any thermoelectric device instead. As stated by the Board, "Absent such reasons or incentives, the teachings of the references are not combinable." *Scripps Clinic & Research Foundation v. Genentech Incorporated*, 927 F.2d 1565, 1577, 18 USPQ 2d 1001, 1010 (Fed. Cir. 1991).

In addition, the '918 reference lacks the entire list of features already presented in regard to the '939 reference. That is:

- "a thermoelectric liquid heat exchanger disposed in such structure of such

vehicle”. The ‘918 reference teaches use of vehicle liquids and thus teaches away from use of thermoelectrics. *And the ‘918 reference lacks any thermoelectric heat exchanger and thus cannot teach one in the structure of the vehicle.*

– “liquid dispenser has a second position concealing the liquid dispenser within such vehicle dashboard.” The ‘918 reference has no provision for any second

position of the spigot, and thus lacks one position on the dashboard and a second position inside the dashboard.

– “the liquid dispenser further comprises a door.” The ‘918 reference lacks a door on the liquid dispenser.

– “the first switch is mounted on the driver’s side door.” The ‘918 reference lacks a switch on the driver’s side door.

The ‘927 Reference

The ‘927 reference teaches a cup holder which hangs suspended inside a “glove box” or “dash compartment”. Air from the vehicle’s air conditioning or ventilation system is passed through the glove box to cool the beverage.

This system also lacks a thermoelectric heater, and teaches away from use of a thermoelectric heater by teaching use of cool air to cool beverages. As noted in regard to the ‘918 reference, a reference that teaches away from the structures of the invention may not be used in combination against the invention, and before such a combination could be made in any case there must be a suggestion for the combination.

In addition to teaching AWAY from thermoelectric heaters, and not suggesting a

combination with thermoelectric heaters, the '927 reference lacks the same items as previously discussed:

- 5 – “a thermoelectric liquid heat exchanger disposed in such structure of such vehicle”. The '927 reference teaches use of cooled air flow and thus teaches away from use of thermoelectrics.
- 10 – “liquid dispenser has a second position concealing the liquid dispenser within such vehicle dashboard.” The '927 reference may be entirely concealed with in the vehicle dashboard, but *the '927 reference lacks any spigot or faucet at all and thus cannot teach a liquid dispenser in any place.* Thus it teaches away from any liquid dispense and furthermore cannot teach a liquid dispenser in any position inside or outside the dashboard.
- 15 – “the liquid dispenser further comprises a door.” The '927 reference lacks a liquid dispenser and thus lacks a door on the liquid dispenser. The '927 reference use of the glove compartment door cannot be arbitrarily combined with a structure the '927 reference not only lacks but actually teaches away from.
- 20 – “the first switch is mounted on the driver's side door.” The '927 reference lacks a switch on the driver's side door.

Thus there is structure which is not present in any of the three references relied upon.

Combination of References

First, since two of the references actually teach away from the use of any electric heater

and one teaches away from thermoelectric heaters, it is not possible to use them to defeat claims which specify use of thermoelectric heaters.

Devices which teach use of cooled air from the air conditioner, or use the fluids of the engine for heating/cooling, obviously teach away from devices like the present invention which use thermoelectric structures for heating/cooling. The '939 reference, teaching use of a resistance heater and teaching use of separate cooling structures which would be totally unnecessary if a thermoelectric heater were used therein.

Second, there must be suggestions to combine the references, and there are no such suggestions. (id.)

Thirdly, even if it were permissible to combine references which teach away from each other, the combination would nonetheless lack certain structures of claims 1, 2, 6 and 13.

For example, no combination of these three claims teaches a thermoelectric heat exchanger disposed in the structure of such vehicle. Only the '939 has an electric heat exchanger at all, but it is located on the dashboard and the other two references teach away from thermoelectric heat exchangers entirely and thus cannot teach a thermoelectric heat exchanger anywhere either. As this structural limitation is present in claim 1, claim 1 and all claims dependent therefrom (claims 2 through 15) are allowable and such action is earnestly requested. And even if the '939 reference did teach a thermoelectric heater (which it does not), then it would still fail to disclose a thermoelectric heat exchanger disposed in the structure of the vehicle, a failing shared by all three references.

Thus, claim 1 and all claims dependent therefrom are allowable, and such action is earnest requested.

In addition, none of these devices teaches a liquid dispenser having two positions. Only the '939 and the '918 reference have a liquid dispenser, but they do not have two positions. *The '927 reference lacks a liquid dispenser and thus cannot teach a liquid dispenser anywhere.*

Thus claim 2 and all claims dependent therefrom are allowable and such action is earnest
5 requested.

Similarly, none of the devices teach a liquid dispenser having a door. *The '927 reference lacks at liquid dispenser and thus cannot teach a liquid dispenser having any structure at all.*
The other two references do not teach doors upon the liquid dispensers.

For this reason claim 6 and all claims dependent thereon are allowable and such action is
10 earnest requested.

In addition, none of the prior art references teaches a switch mounted on the driver's side door controlling electrical current to the device. Indeed, the '918 and 927 references lack thermoelectric devices and thus cannot have switches anywhere to control electrical current to the non-existent thermoelectric heater.

Thus claim 13 and all claims dependent therefrom are allowable, and such action is
15 earnestly requested.

Hypothetical Combinations with Thermoelectric Heater Reference

In the interests of speeding prosecution, the applicant hereby considers a combination not
20 yet considered by the Examiner: the three reference devices cited to date and some reference teaching a vehicular thermoelectric heater.

However, the same problems discussed above prevent such a combination. All three

references cited to date teach away from use of thermoelectric heaters and thus cannot be combined therewith. None of the devices teach a thermoelectric heater located in the structure of the vehicle. None of the devices teach a two position liquid dispenser / spigot having a first position on the dashboard and a second position within the dashboard. None teach a door on the spigot. None teach a driver's side switch to control a thermoelectric heater and pump. Various of these reference in fact teach away from various ones of the items not present and thus could doubly not be combined together.

Finally, if the Examiner should choose to cite references not yet made of record in the case, the applicant respectfully requests that the next Office Action be made NON-final, in keeping with the provisions of MPEP 706.07(a).

Conclusion, Paragraph 6 of the First Office Action

For all the foregoing reasons, applicant respectfully urges that the application is now in condition for immediate allowance, and such action is requested. The Examiner is respectfully urged to contact applicant's counsel, Craig W. Barber, PO Box 16220, Golden, Colorado, 80402-6004, 303-278-9973, fax 303-278-9977, with any questions or comments.

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